**JOINs and Subqueries**

1. Show bank transaction details for all SB accounts as follows (order by transaction type and then by transaction date – most recent to earliest):

Transaction no, trans type (as ‘CREDIT’ or ‘DEBIT’), trans date, account no, customer’s full name and home phone, first 20 chars of trans desc, trans amt

1. Show transactions happened on all RD accounts and the full name and office address of all its customers.
2. Display names of individual customers who will have maximum and minimum FD amounts when their FD accounts get matured.
3. Which customers have made SB a/c transactions whose amount is more than the average SB transaction amt. List their names and respective transaction amounts.
4. Display the name(s) of customer(s) having second highest current balance in RD a/c.
5. Which customer has earned the highest interest for his/her RD account? Show his/her account details also. (Use C. I. formula provided earlier to calculate the interest)

Answers:

1.

SELECT TRAN.TRANS\_NO, DECODE(TRAN.TRANS\_TYPE,'CR','CREDIT','DB','DEBIT','DEFAULT') AS TRAN\_TYPE, TRAN.TRANS\_DT, TRAN.TRANS\_ACC\_NO, BCUST.CUST\_FNAME||' '||BCUST.INITIALS||' '||BCUST.CUST\_LNAME AS CUSTOMER\_NAME, CUST.CUST\_PHONE AS HOME\_PHONE, SUBSTR(TRAN.TRANS\_DESC,1,20) AS TRANS\_DESC, TRAN.TRANS\_AMT

FROM BANK\_TRANSACTION TRAN INNER JOIN BANK\_SB\_ACCOUNT BSB

ON TRAN.TRANS\_ACC\_NO = BSB.ACCOUNT\_NO

INNER JOIN BANK\_CUSTOMER BCUST

ON BSB.PRIMARY\_CUST\_ID = BCUST.CUST\_ID

INNER JOIN BANK\_CUST\_CONTACT CUST

ON BCUST.CUST\_ID = CUST.CUST\_ID

WHERE CONTACT\_TYPE = 'HOME'

ORDER BY TRANS\_TYPE, TRANS\_DT DESC;

2.

SELECT DISTINCT TRAN.TRANS\_NO,TRAN.TRANS\_DT, TRAN.TRANS\_ACC\_NO,CUST.CUST\_FNAME||' '||CUST.INITIALS||' '||CUST.CUST\_LNAME AS CUSTOMER\_NAME,

BCUST.CONTACT\_TYPE, BCUST.CUST\_ADDR\_LINE1||', '||BCUST.CUST\_ADDR\_LINE2||', '||BCUST.CUST\_CITY||', '||BCUST.CUST\_STATE||', '||BCUST.CUST\_PIN AS OFFICE\_ADDR

FROM BANK\_TRANSACTION TRAN INNER JOIN BANK\_RD\_ACCOUNT BRD

ON TRAN.TRANS\_ACC\_NO = BRD.ACCOUNT\_NO

INNER JOIN BANK\_CUSTOMER CUST

ON BRD.RD\_CUST\_ID = CUST.CUST\_ID

LEFT JOIN BANK\_CUST\_CONTACT BCUST

ON BRD.RD\_CUST\_ID = BCUST.CUST\_ID

AND BCUST.CONTACT\_TYPE = 'OFFICE'

ORDER BY TRANS\_ACC\_NO;

3.

SELECT BFD.CUST\_ID,CUST.CUST\_FNAME||' '||CUST.INITIALS||' '||CUST.CUST\_LNAME AS CUSTOMER\_NAME

FROM BANK\_FD\_ACCOUNT BFD INNER JOIN BANK\_CUSTOMER CUST

ON BFD.CUST\_ID = CUST.CUST\_ID

WHERE (ROUND(INITIAL\_AMT\*POWER((1+0.085),(FD\_TERM\_MNTH/12)),2)) IN (

(SELECT MAX(ROUND(INITIAL\_AMT\*POWER((1+0.085),(FD\_TERM\_MNTH/12)),2))FROM BANK\_FD\_ACCOUNT),

(SELECT MIN(ROUND(INITIAL\_AMT\*POWER((1+0.085),(FD\_TERM\_MNTH/12)),2)) FROM BANK\_FD\_ACCOUNT));

4.

SELECT BCUST.CUST\_FNAME||' '||BCUST.INITIALS||' '||BCUST.CUST\_LNAME AS FULL\_NAME,TRAN.TRANS\_AMT

FROM BANK\_TRANSACTION TRAN INNER JOIN BANK\_SB\_ACCOUNT BSB

ON TRAN.TRANS\_ACC\_NO = BSB.ACCOUNT\_NO

INNER JOIN BANK\_CUSTOMER BCUST

ON BSB.PRIMARY\_CUST\_ID = BCUST.CUST\_ID

WHERE TRAN.TRANS\_AMT > (SELECT AVG(TRANS\_AMT) FROM BANK\_TRANSACTION);

5.

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| SELECT CUST.CUST\_FNAME||' '||CUST.INITIALS||' '||CUST.CUST\_LNAME AS FULL\_NAME, CURR\_BALANCE |
| FROM BANK\_RD\_ACCOUNT BCUST INNER JOIN BANK\_CUSTOMER CUST |
| ON BCUST.RD\_CUST\_ID = CUST.CUST\_ID |
| WHERE CURR\_BALANCE = (SELECT MAX(CURR\_BALANCE) FROM BANK\_RD\_ACCOUNT WHERE CURR\_BALANCE < (SELECT MAX(CURR\_BALANCE)FROM BANK\_RD\_ACCOUNT)); |

6.

SELECT RDACC.ACCOUNT\_NO, RDACC.RD\_CUST\_ID,CUST.CUST\_FNAME||' '||CUST.INITIALS||' '||CUST.CUST\_LNAME AS FULL\_NAME

FROM BANK\_RD\_ACCOUNT RDACC INNER JOIN BANK\_CUSTOMER CUST

ON RDACC.RD\_CUST\_ID = CUST.CUST\_ID

WHERE ROUND(INSTALLMENT\_AMT\*POWER(1.085,RD\_TERM\_YRS)-INSTALLMENT\_AMT,2) = (SELECT MAX(ROUND(INSTALLMENT\_AMT\*POWER(1.085,RD\_TERM\_YRS)-INSTALLMENT\_AMT,2)) FROM BANK\_RD\_ACCOUNT);